Appendix B

An Interface Description Language File for the COIGN System

```
/////////////////////////////////////////////////////////////////////////////
//
//
//

#ifndef _COIGNIDL_IDL_
#define _COIGNIDL_IDL_

/////////////////////////////////////////////////////////////////////////////
//
import "objidl.idl";
import "oaidl.idl";
import "oleidl.idl";

/////////////////////////////////////////////////////////////////////////////
//
interface ICoignHost;
interface ICoignFactory;

/////////////////////////////////////////////////////////////////////////////
//
typedef struct _CCallHistory
{
      IID                m_Iid;
      // 0 if function call.
      ULONG        m_nObjectClassification;                        // 0 if
function call.
      ULONG        m_nMemberFunction;                                    // VA if
function call.
      ULONG        m_nStackFrame;                                        // N/A,
Testing only.
      ULONG        m_n1;
} CCallHistory;

/////////////////////////////////////////////////////////////////////////////
//
[object, uuid(7e78c140-5c6f-11d1-98ff-006097b010e3),pointer_default(unique),
local]
interface IPersistBuffer : IPersist
{
    HRESULT IsDirty(void);

    HRESULT Load([in, unique, size_is(cbData)] BYTE *pbData,
                         [in] ULONG cbData);
}

[object, uuid(7e78c141-5c6f-11d1-98ff-006097b010e3),pointer_default(unique),
local]
interface IPersistBufferInit : IPersistBuffer
{
    HRESULT InitNew(void);
}
```

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```
////////////////////////////////////////////////////////////////////////////////
//
[object, uuid(9ceeb054-e415-11d0-98d1-006097b010e3), pointer_default(unique)]
interface ICoignHost : IUnknown
{
      ///////////////////////////////////////////////////////////// Create Factory.
      //
      HRESULT           IsAlive(void);

      HRESULT           GetHostFactory([in] ULONG nHostId,
                                              [out] ICoignFactory **ppFactory);
      HRESULT           GetHostInternal([in] ULONG nHostId,
                                                 [out] ICoignFactory
**ppFactory);

      HRESULT           SetHome([in] ICoignFactory *pHome,
                                     [in] ULONG nHostId,
                                     [in, size_is(cbData)] BYTE *pbData,
                                     [in] ULONG cbData,
                                     [in] ULONG nSystemObjectToken,
                                     [in] ULONG nApplicationObjectToken);
      HRESULT           ClearHome(ULONG nKey);

      HRESULT           LogData([in, size_is(cbData)] BYTE *pbData,
                                     [in] ULONG cbData);
      HRESULT           ExtraData([in] const CLSID *pClsid,
                                       [in, size_is(cbData)] BYTE *pbData,
                                       [in] ULONG cbData);
      HRESULT           MessageData([in, size_is(cbData)] BYTE *pbData,
                                           [in] ULONG cbData);

      HRESULT           GetCallHistory([in] ULONG nFrameAddress,
                                              [out] ULONG *pnRecords,
                                              [out, size_is(, *pnRecords)]
CCallHistory **prgRecords);
};

[object, uuid(9ceeb056-e415-11d0-98d1-006097b010e3), pointer_default(unique)]
interface ICoignFactory : ICoignHost
{
      HRESULT           CoGetClassObject([in] ULONG nObjectClassification,
                                                  [in] REFCLSID rclsid,
                                                  [in] DWORD dwClsContext,
                                                 /* PVOID */ DWORD pvReserved,
                                                  [in] REFIID riid,
                                                  [out, iid_is(riid)] void
**ppv);

      HRESULT           CoGetInstanceFromFile([in] ULONG nObjectClassification,
                                                         [in, unique]
COSERVERINFO *pServerInfo,
                                                         [in, unique] CLSID
*pClsid,
                                                         [in] IUnknown
*punkOuter,
                                                         [in] DWORD dwClsCtx,
                                                         [in] DWORD grfMode,
```

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                                                         [in, string] const
OLECHAR *pwszName,
                                                         [in] REFIID riid, /* was
MULTI_QI/ */
                                                         [out, iid_is(riid)] void
**ppv);

      HRESULT           CoGetInstanceFromIStorage([in] ULONG
nObjectClassification,
                                                               [in, unique]
COSERVERINFO *pServerInfo,
                                                               [in, unique] CLSID
*pClsid,
                                                               [in] IUnknown
*punkOuter,
                                                               [in] DWORD
dwClsCtx,
                                                               [in] IStorage
*pstg,
                                                               [in] REFIID riid,
/* was MULTI_QI/ */
                                                               [out,
iid_is(riid)] void **ppv);

      HRESULT           CoCreateInstance([in] ULONG nObjectClassification,
                                              [in] REFCLSID Clsid,
                                              [in] IUnknown *punkOuter,
                                              [in] DWORD dwClsCtx,
                                              [in] REFIID riid,
                                              [out, iid_is(riid)] void
**ppv);

      HRESULT           CoCreateInstanceEx([in] ULONG nObjectClassification,
                                                [in] REFCLSID Clsid,
                                                [in] IUnknown *punkOuter,
                                                [in] DWORD dwClsCtx,
                                                [in, unique] COSERVERINFO
*pServerInfo,
                                                [in] REFIID riid, /* was
MULTI_QI/ */
                                                [out, iid_is(riid)] void
**ppv);

      HRESULT           StgCreateDocfile([in] ULONG nObjectClassification,
                                              [in, unique, string] const
OLECHAR *pwcsName,
                                              [in] DWORD grfMode,
                                              [in] DWORD reserved,
                                              [out] IStorage **ppstgOpen);

      HRESULT           OleCreate([in] ULONG nObjectClassification,
                                   [in] REFCLSID rclsid,
                                   [in] REFIID riid,
                                   [in] DWORD renderopt,
                                   [in, unique] FORMATETC *pFormatEtc,
                                   [in] IOleClientSite *pClientSite,
                                   [in] IStorage *pStg,
                                      [out, iid_is(riid)] void **ppv);

      HRESULT               OleCreateFromData([in] ULONG nObjectClassification,
                                                  [in] LPDATAOBJECT pSrcDataObj,
                                                  [in] REFIID riid,
                                                  [in] DWORD renderopt,
                                                  [in, unique] LPFORMATETC
pFormatEtc,
                                                  [in] LPOLECLIENTSITE
pClientSite,
                                                  [in] LPSTORAGE pStg,
                                                  [out, iid_is(riid)] void
**ppv);

      HRESULT               OleLoad([in] ULONG nObjectClassification,
                                    [in] IStorage *pStg,
                                    [in] REFIID riid,
                                    [in] IOleClientSite *pClientSite,
                                    [out, iid_is(riid)] void **ppv);

      HRESULT               CoRegisterClassObject([in] ULONG nObjectClassification,
                                                        [in] REFCLSID rclsid,
                                                        [in] LPUNKNOWN pUnk,
                                                        [in] DWORD dwClsContext,
                                                        [in] DWORD flags,
                                                        [out] LPDWORD
lpdwRegister);

      HRESULT               StgCreateDocfileOnILockBytes([in] ULONG
nObjectClassification,
                                                                   [in]
ILockBytes *plkbyt,
                                                                   [in] DWORD
grfMode,
                                                                   [in] DWORD
reserved,
                                                                   [out]
IStorage **ppstgOpen);

      HRESULT               StgOpenStorage([in] ULONG nObjectClassification,
                                             [in, string] const OLECHAR
*pwcsName,
                                             [in] IStorage *pstgPriority,
                                             [in] DWORD grfMode,
                                             [in, unique] SNB snbExclude,
                                             [in] DWORD reserved,
                                             [out] IStorage **ppstgOpen);

      HRESULT               StgOpenStorageOnILockBytes([in] ULONG
nObjectClassification,
                                                               [in] ILockBytes
*plkbyt,
                                                               [in] IStorage
*pstgPriority,
                                                               [in] DWORD
grfMode,
```

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                                                                    [in, unique] SNB
snbExclude,
                                                                    [in] DWORD
reserved,
                                                                    [out] IStorage
**ppstgOpen);

      HRESULT          StgOpenAsyncDocfileOnIFillLockBytes([in] ULONG
nObjectClassification,

      [in] IFillLockBytes *pflb,

      [in] DWORD grfMode,

      [in] DWORD asyncFlags,

      [out] IStorage **ppstgOpen);

      HRESULT          StgGetIFillLockBytesOnILockBytes([in] ULONG
nObjectClassification,
                                                                              [in]
ILockBytes *pilb,
                                                                              [out]
IFillLockBytes **ppflb);

      HRESULT          StgGetIFillLockBytesOnFile([in] ULONG
nObjectClassification,
                                                                    [in, string]
OLECHAR const *pwcsName,
                                                                    [out]
IFillLockBytes **ppflb);

      HRESULT          BindMoniker([in] ULONG nObjectClassification,
                                   [in] LPMONIKER pmk,
                                   [in] DWORD grfOpt,
                                   [in] REFIID riid,
                                   [out, iid_is(riid)] void **ppvResult);

      HRESULT          CoGetObject([in] ULONG nObjectClassification,
                                   [in] LPCWSTR pszName,
                                   [in, unique] BIND_OPTS *pBindOptions,
                                   [in] REFIID riid,
                                   [out, iid_is(riid)] void **ppv);

      HRESULT          MkParseDisplayName([in] ULONG nObjectClassification,
                                            [in] LPBC pbc,
                                            [in] LPCOLESTR szUserName,
                                            [out] ULONG *pchEaten,
                                            [out] LPMONIKER *ppmk);

      HRESULT          MonikerRelativePathTo([in] ULONG nObjectClassification,
                                                 [in] LPMONIKER pmkSrc,
                                                 [in] LPMONIKER pmkDest,
                                                 [out] LPMONIKER *ppmk,
                                                 [in] BOOLEAN
dwReserved);
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      HRESULT           MonikerCommonPrefixWith([in] ULONG
nObjectClassification,
                                                             [in] LPMONIKER
pmkThis,
                                                             [in] LPMONIKER
pmkOther,
                                                             [out] LPMONIKER
*ppmk);

      HRESULT           CreateBindCtx([in] ULONG nObjectClassification,
                                     [in] DWORD reserved,
                                     [out] LPBC *ppbc);

      HRESULT           CreateGenericComposite([in] ULONG nObjectClassification,
                                                          [in] LPMONIKER
pmkFirst,
                                                          [in] LPMONIKER pmkRest,
                                                          [out] LPMONIKER *ppmk);

      HRESULT           CreateClassMoniker([in] ULONG nObjectClassification,
                                                    [in] REFCLSID rclsid,
                                                    [out] LPMONIKER *ppmk);

      HRESULT           CreateFileMoniker([in] ULONG nObjectClassification,
                                                   [in] LPCOLESTR lpszPathName,
                                                   [out] LPMONIKER *ppmk);

      HRESULT           CreateItemMoniker([in] ULONG nObjectClassification,
                                                   [in] LPCOLESTR lpszDelim,
                                                   [in] LPCOLESTR lpszItem,
                                                   [out] LPMONIKER *ppmk);

      HRESULT           CreateAntiMoniker([in] ULONG nObjectClassification,
                                                   [out] LPMONIKER *ppmk);

      HRESULT           CreatePointerMoniker([in] ULONG nObjectClassification,
                                                        [in] LPUNKNOWN punk,
                                                        [out] LPMONIKER *ppmk);

      HRESULT           GetRunningObjectTable([in] ULONG nObjectClassification,
                                                         [in] DWORD reserved,
                                                         [out]
LPRUNNINGOBJECTTABLE *pprot);

      HRESULT           CreateDataAdviseHolder([in] ULONG nObjectClassification,
                                                          [out]
LPDATAADVISEHOLDER* ppDAHolder);

      HRESULT           OleCreateEx([in] ULONG nObjectClassification,
                                   [in] REFCLSID rclsid,
                                   [in] REFIID riid,
                                   [in] DWORD dwFlags,
                                   [in] DWORD renderopt,
                                   [in] ULONG cFormats,
                                   [in, unique, size_is(cFormats)] DWORD*
rgAdvf,
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                                           [in, unique, size_is(cFormats)]
LPFORMATETC rgFormatEtc,
                                           [in] IAdviseSink* lpAdviseSink,
                                           [out, size_is(cFormats)] DWORD*
rgdwConnection,
                                           [in] LPOLECLIENTSITE pClientSite,
                                           [in] LPSTORAGE pStg,
                                           [out, iid_is(riid)] void **ppv);

      HRESULT             OleCreateFromDataEx([in] ULONG nObjectClassification,
                                                       [in] LPDATAOBJECT
pSrcDataObj,
                                                       [in] REFIID riid,
                                                       [in] DWORD dwFlags,
                                                       [in] DWORD renderopt,
                                                       [in] ULONG cFormats,
                                                       [in, unique,
size_is(cFormats)] DWORD* rgAdvf,
                                                       [in, unique,
size_is(cFormats)]
                                                       LPFORMATETC rgFormatEtc,
                                                       [in] IAdviseSink*
lpAdviseSink,
                                                       [out, size_is(cFormats)]
DWORD* rgdwConnection,
                                                       [in] LPOLECLIENTSITE
pClientSite,
                                                       [in] LPSTORAGE pStg,
                                                       [out, iid_is(riid)] void
**ppv);

      HRESULT             OleCreateLinkFromData([in] ULONG nObjectClassification,
                                                         [in] LPDATAOBJECT
pSrcDataObj,
                                                         [in] REFIID riid,
                                                         [in] DWORD renderopt,
                                                         [in, unique] LPFORMATETC
pFormatEtc,
                                                         [in] LPOLECLIENTSITE
pClientSite,
                                                         [in] LPSTORAGE pStg,
                                                         [out, iid_is(riid)] void
**ppv);

      HRESULT             OleCreateLinkFromDataEx([in] ULONG
nObjectClassification,
                                                             [in] LPDATAOBJECT
pSrcDataObj,
                                                             [in] REFIID riid,
                                                             [in] DWORD dwFlags,
                                                             [in] DWORD
renderopt,
                                                             [in] ULONG cFormats,
                                                             [in, unique,
size_is(cFormats)] DWORD* rgAdvf,
                                                             [in, unique,
size_is(cFormats)]
```

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```
                                                            LPFORMATETC
rgFormatEtc,
                                                            [in] IAdviseSink*
lpAdviseSink,
                                                            [out,
size_is(cFormats)] DWORD* rgdwConnection,
                                                            [in] LPOLECLIENTSITE
pClientSite,
                                                            [in] LPSTORAGE pStg,
                                                            [out, iid_is(riid)]
void **ppv);

     HRESULT          OleCreateStaticFromData([in] ULONG
nObjectClassification,
                                                            [in] LPDATAOBJECT
pSrcDataObj,
                                                            [in] REFIID riid,
                                                            [in] DWORD
renderopt,
                                                            [in, unique]
LPFORMATETC pFormatEtc,
                                                            [in] LPOLECLIENTSITE
pClientSite,
                                                            [in] LPSTORAGE pStg,
                                                            [out, iid_is(riid)]
void **ppv);

     HRESULT          OleCreateLink([in] ULONG nObjectClassification,
                                    [in] LPMONIKER pmkLinkSrc,
                                    [in] REFIID riid,
                                    [in] DWORD renderopt,
                                    [in, unique] LPFORMATETC
lpFormatEtc,
                                    [in] LPOLECLIENTSITE pClientSite,
                                    [in] LPSTORAGE pStg,
                                    [out, iid_is(riid)] void **ppv);

     HRESULT          OleCreateLinkEx([in] ULONG nObjectClassification,
                                        [in] LPMONIKER pmkLinkSrc,
                                        [in] REFIID riid,
                                        [in] DWORD dwFlags,
                                        [in] DWORD renderopt,
                                        [in] ULONG cFormats,
                                        [in, unique, size_is(cFormats)]
DWORD* rgAdvf,
                                        [in, unique, size_is(cFormats)]
LPFORMATETC rgFormatEtc,
                                        [in] IAdviseSink* lpAdviseSink,
                                        [out, size_is(cFormats)] DWORD*
rgdwConnection,
                                        [in] LPOLECLIENTSITE
pClientSite,
                                        [in] LPSTORAGE pStg,
                                        [out, iid_is(riid)] void **ppv);

     HRESULT          OleCreateLinkToFile([in] ULONG nObjectClassification,
                                                      [in] LPCOLESTR
lpszFileName,
                                                      [in] REFIID riid,
                                                      [in] DWORD renderopt,
                                                      [in, unique] LPFORMATETC
lpFormatEtc,
                                                      [in] LPOLECLIENTSITE
pClientSite,
                                                      [in] LPSTORAGE pStg,
                                                      [out, iid_is(riid)] void
**ppv);

      HRESULT           OleCreateLinkToFileEx([in] ULONG nObjectClassification,
                                                        [in] LPCOLESTR
lpszFileName,
                                                        [in] REFIID riid,
                                                        [in] DWORD dwFlags,
                                                        [in] DWORD renderopt,
                                                        [in] ULONG cFormats,
                                                        [in, unique,
size_is(cFormats)] DWORD* rgAdvf,
                                                        [in, unique,
size_is(cFormats)]
                                                        LPFORMATETC rgFormatEtc,
                                                        [in] IAdviseSink*
lpAdviseSink,
                                                        [out, size_is(cFormats)]
DWORD* rgdwConnection,
                                                        [in] LPOLECLIENTSITE
pClientSite,
                                                        [in] LPSTORAGE pStg,
                                                        [out, iid_is(riid)] void
**ppv);

      HRESULT           OleCreateFromFile([in] ULONG nObjectClassification,
                                                  [in] REFCLSID rclsid,
                                                  [in] LPCOLESTR lpszFileName,
                                                  [in] REFIID riid,
                                                  [in] DWORD renderopt,
                                                  [in, unique] LPFORMATETC
lpFormatEtc,
                                                  [in] LPOLECLIENTSITE
pClientSite,
                                                  [in] LPSTORAGE pStg,
                                                  [out, iid_is(riid)] void
**ppv);

      HRESULT           OleCreateFromFileEx([in] ULONG nObjectClassification,
                                                      [in] REFCLSID rclsid,
                                                      [in] LPCOLESTR
lpszFileName,
                                                      [in] REFIID riid,
                                                      [in] DWORD dwFlags,
                                                      [in] DWORD renderopt,
                                                      [in] ULONG cFormats,
                                                      [in, unique,
size_is(cFormats)] DWORD* rgAdvf,
                                                       [in, unique,
size_is(cFormats)]
                                                       LPFORMATETC rgFormatEtc,
                                                       [in] IAdviseSink*
lpAdviseSink,
                                                       [out, size_is(cFormats)]
DWORD* rgdwConnection,
                                                       [in] LPOLECLIENTSITE
pClientSite,
                                                       [in] LPSTORAGE pStg,
                                                       [out, iid_is(riid)] void
**ppv);

      HRESULT           OleLoadFromStream([in] ULONG nObjectClassification,
                                                   [in] LPSTREAM pStm,
                                                   [in] REFIID riid,
                                                   [out, iid_is(riid)] void
**ppv);

      HRESULT           OleGetClipboard([in] ULONG nObjectClassification,
                                                 [out] LPDATAOBJECT* ppDataObj);

      HRESULT           CreateOleAdviseHolder([in] ULONG nObjectClassification,
                                                         [out] LPOLEADVISEHOLDER*
ppOAHolder);

      HRESULT           OleCreateDefaultHandler([in] ULONG
nObjectClassification,
                                                             [in] REFCLSID clsid,
                                                             [in] LPUNKNOWN
pUnkOuter,
                                                             [in] REFIID riid,
                                                             [out, iid_is(riid)]
void **ppObj);

      HRESULT           OleCreateEmbeddingHelper([in] ULONG
nObjectClassification,
                                                              [in] REFCLSID
clsid,
                                                              [in] LPUNKNOWN
pUnkOuter,
                                                              [in] DWORD flags,
                                                              [in] LPCLASSFACTORY
pCF,
                                                              [in] REFIID riid,
                                                              [out, iid_is(riid)]
void **ppObj);

      HRESULT           OleRegEnumFormatEtc([in] ULONG nObjectClassification,
                                                       [in] REFCLSID clsid,
                                                       [in] DWORD dwDirection,
                                                       [out] LPENUMFORMATETC*
ppenum);

      HRESULT           OleRegEnumVerbs([in] ULONG nObjectClassification,
                                                 [in] REFCLSID clsid,
                                                 [out] LPENUMOLEVERB* ppenum);
```

```
};

/////////////////////////////////////////////////////////// Logger Interfaces.
//
interface ICoignLogger;
interface ICoignLoggerObject;
interface ICoignLoggerInterface;

enum {
      ECoignFid_Application                                       = 9000,
      ECoignFid_System                                            = 9001,

      ECoignFidCoGetClassObject                                   = 9002,
      ECoignFidCoGetInstanceFromFile                              = 9003,
      ECoignFidCoGetInstanceFromIStorage                    = 9004,
      ECoignFidStgCreateDocfile                                   = 9005,
      ECoignFidCoCreateInstanceEx                                 = 9006,
      ECoignFidCoRegisterClassObject                              = 9008,
      ECoignFidStgCreateDocfileOnILockBytes                 = 9009,
      ECoignFidStgOpenStorage                                     = 9010,
      ECoignFidStgOpenStorageOnILockBytes                   = 9011,
      ECoignFidStgOpenAsyncDocfileOnIFillLockBytes    = 9012,
      ECoignFidStgGetIFillLockBytesOnILockBytes       = 9013,
      ECoignFidStgGetIFillLockBytesOnFile                   = 9014,
      ECoignFidBindMoniker                                        = 9015,
      ECoignFidCoGetObject                                        = 9016,
      ECoignFidMkParseDisplayName                                 = 9017,
      ECoignFidMonikerRelativePathTo                              = 9018,
      ECoignFidMonikerCommonPrefixWith                      = 9019,
      ECoignFidCreateBindCtx                                      = 9020,
      ECoignFidCreateGenericComposite                             = 9021,
      ECoignFidCreateClassMoniker                                 = 9022,
      ECoignFidCreateFileMoniker                                  = 9023,
      ECoignFidCreateItemMoniker                                  = 9024,
      ECoignFidCreateAntiMoniker                                  = 9025,
      ECoignFidCreatePointerMoniker                         = 9026,
      ECoignFidGetRunningObjectTable                              = 9027,
      ECoignFidCreateDataAdviseHolder                             = 9028,
      ECoignFidOleCreate                                                = 9029,
      ECoignFidOleCreateEx                                        = 9030,
      ECoignFidOleCreateFromData                                  = 9031,
      ECoignFidOleCreateFromDataEx                          = 9032,
      ECoignFidOleCreateLinkFromData                              = 9033,
      ECoignFidOleCreateLinkFromDataEx                      = 9034,
      ECoignFidOleCreateStaticFromData                      = 9035,
      ECoignFidOleCreateLink                                      = 9036,
      ECoignFidOleCreateLinkEx                                    = 9037,
      ECoignFidOleCreateLinkToFile                          = 9038,
      ECoignFidOleCreateLinkToFileEx                              = 9039,
      ECoignFidOleCreateFromFile                                  = 9040,
      ECoignFidOleCreateFromFileEx                          = 9041,
      ECoignFidOleLoad                                            = 9042,
      ECoignFidOleLoadFromStream                                  = 9043,
      ECoignFidOleGetClipboard                                    = 9044,
      ECoignFidCreateOleAdviseHolder                              = 9045,
      ECoignFidOleCreateDefaultHandler                      = 9046,
      ECoignFidOleCreateEmbeddingHelper                     = 9047,
      ECoignFidOleRegEnumFormatEtc                              = 9048,
      ECoignFidOleRegEnumVerbs                                        = 9049,
      ECoignFidOleCreateFontIndirect                                  = 9050,
      ECoignFidOleCreatePictureIndirect                         = 9051,
      ECoignFidOleLoadPicture                                         = 9052,
      ECoignFidOleLoadPicturePath                                     = 9053,
      ECoignFidOleLoadPictureFile                                     = 9054,
      ECoignFidCoCreateInstance                                       = 9055,

      ECoignFixMaximumValue
};

[object, local, uuid(9ceeb060-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignLogger : IUnknown
{
      HRESULT           Reset();
      HRESULT           Flush();

      HRESULT           EnableRecord();
      HRESULT           DisableRecord();
      HRESULT           TestRecord();

      HRESULT           LogExtraData([in] const CLSID *pClsid,
                                           [in, size_is(cbData)] BYTE *pbData,
                                           [in] ULONG cbData);

      HRESULT           CreateThread([out] ULONG *pnThreadToken);
      HRESULT           DeleteThread([in] ULONG nThreadToken);

      HRESULT           CreateObject([in] ULONG nThreadToken,
                                           [in] ULONG nCreatorObjectToken,
                                           [in] ULONG nCoignFid,
                                           [in] ULONG nObjectClassification,
                                           [in] const CLSID *pClsid,
                                           [out] ULONG *pnObjectToken);
      HRESULT           DeleteObject([in] ULONG nThreadToken,
                                           [in] ULONG nObjectToken);
      HRESULT           SetObjectClass([in] ULONG nObjectToken,
                                             [in] const CLSID *pClsid);
      HRESULT           SetObjectConstraint([in] ULONG nObjectToken,
                                                      [in] ULONG
nObjectConstraint);

      HRESULT           CreateInterface([in] ULONG nThreadToken,
                                                [in] ULONG nObjectToken,
                                                [in] ULONG nInterfaceType,
                                                [out] ULONG *pnInterfaceToken);
      HRESULT           DeleteInterface([in] ULONG nThreadToken,
                                                [in] ULONG nObjectToken,
                                                [in] ULONG nInterfaceToken);
      HRESULT           SetInterfaceConstraint([in] ULONG nThreadToken,
                                                         [in] ULONG
nCallerObjectToken,
                                                         [in] ULONG
nObjectToken,
                                                         [in] ULONG
nInterfaceToken,
                                                         [in] ULONG
nInterfaceConstraint);

      HRESULT             Enter([in] ULONG nThreadToken,
                                  [in] ULONG nCallerObjectToken,
                                  [in] ULONG nObjectToken,
                                  [in] ULONG nInterfaceToken,
                                  [in] ULONG nFunction,
                                  [out] ULONG *pnCallToken,
                                  [out] LONGLONG *pllEnterCycle);
      HRESULT             Leave([in] ULONG nThreadToken,
                                  [in] ULONG nObjectToken,
                                  [in] ULONG nInterfaceToken,
                                  [in] ULONG nCallToken,
                                  [in] ULONG nInBytes,
                                  [in] ULONG nInUncertainty,
                                  [in] ULONG nOutBytes,
                                  [in] ULONG nOutUncertainty,
                                  [in] LONGLONG llEnterCycle,
                                  [in] LONGLONG llInnerCycles,
                                  [in] HRESULT hrResult,
                                  [out] LONGLONG *pllOuterCycles);

      HRESULT             LoadModule([in] ULONG dwBeg,
                                         [in] ULONG dwEnd,
                                         [in, string] OLECHAR *pwszModule,
                                         [out] ULONG *pnModuleToken);
      HRESULT             SetObjectModule([in] ULONG nObjectToken,
                                                  [in] ULONG nModuleToken);
};

////////////////////////////////////////////////////////////////////////////////
//
[object, local, uuid(9ceeb071-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignObjectClassifier : IUnknown
{
      HRESULT             GetObjectClassification([in] ULONG nFunctionId,
                                                    [in] ULONG nHistoryRecords,

[in,unique,size_is(nHistoryRecords)]
                                                    const CCallHistory *pHistory,
                                                    [in,unique] const CLSID
*pClsid,
                                                    [out] ULONG
*pnObjectClassification);
};

[object, local, uuid(9ceeb080-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignInterfaceCallback : IUnknown
{
      HRESULT             IncomingInterface([in] ULONG nObjectCallbackToken,
                                                    [in] const IID *pIid,
                                                    [in,out] PVOID *ppv);
      HRESULT           OutgoingInterface([in] ULONG nObjectCallbackToken,
                                                  [in] const IID *pIid,
                                                  [in,out] PVOID *ppv);
};

[object, local, uuid(9ceeb081-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignInterfaceInformer : IUnknown
{
      HRESULT           IsValidInterface([in] ULONG nInterfaceTypeToken);

      HRESULT           GetInterfaceInfo([in] const IID *pIid,
                                                 [out] ULONG
*pnInterfaceTypeToken);

      HRESULT           SetInterfaceCallback([in] ICoignInterfaceCallback
*pCallback);

      HRESULT           IsExtension([in] ULONG nBaseInterfaceTypeToken,
                                          [in] ULONG nInterfaceTypeToken);

      HRESULT           GetInterfaceDescription([in] ULONG nInterfaceTypeToken,
                                                            [out,
size_is(nMaxSize),string] OLECHAR *pwzName,
                                                            [in] ULONG
nMaxSize);

      HRESULT           GetInterfaceIID([in] ULONG nInterfaceTypeToken,
                                                [out] const IID **ppIid);

      HRESULT           SizeIncomingDataLocal([in] ULONG nObjectCallbackToken,
                                                        [in] ULONG
nInterfaceTypeToken,
                                                        [in] ULONG
nMemberFunction,
                                                        [in] ULONG
*pStackPointer,
                                                        [in] ULONG *pStackFrame,
                                                        [out] ULONG
*pnFrameSize,
                                                        [out] ULONG *pnDataSize,
                                                        [out] ULONG
*pnUncertainty);

      HRESULT           SizeIncomingDataRemote([in] ULONG nObjectCallbackToken,
                                                         [in] ULONG
nInterfaceTypeToken,
                                                         [in] ULONG
nMemberFunction,
                                                         [in] ULONG
*pStackPointer,
                                                         [in] ULONG
*pStackFrame,
                                                         [out] ULONG
*pnThunkAddr,
                                                         [out] ULONG
*pnFrameSize,
                                                         [out] ULONG
*pnDataSize,
                                                         [out] ULONG
*pnUncertainty);

      HRESULT           SizeOutgoingDataLocal([in] ULONG nObjectCallbackToken,
                                                        [in] ULONG
nInterfaceTypeToken,
                                                        [in] ULONG
nMemberFunction,
                                                        [in] ULONG
*pStackPointer,
                                                        [in] ULONG *pStackFrame,
                                                        [out] ULONG
*pnFrameSize,
                                                        [out] ULONG *pnDataSize,
                                                        [out] ULONG
*pnUncertainty);

      HRESULT           SizeOutgoingDataRemote([in] ULONG nObjectCallbackToken,
                                                         [in] ULONG
nInterfaceTypeToken,
                                                         [in] ULONG
nMemberFunction,
                                                         [in] ULONG
*pStackPointer,
                                                         [in] ULONG
*pStackFrame,
                                                         [out] ULONG
*pnFrameSize,
                                                         [out] ULONG
*pnDataSize,
                                                         [out] ULONG
*pnUncertainty);
};

[object, local, uuid(9ceeb090-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignInternalInterface : IUnknown
{
};

[object, local, uuid(9ceeb091-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignUnknownInterface : IUnknown
{
};

[object, local, uuid(9ceeb092-e415-11d0-98d1-006097b010e3),
pointer_default(unique)]
interface ICoignConstraintInterface : IUnknown
{
};

/////////////////////////////////////////////////////////////////////// Classes.
```

```
//
#endif       // _COIGNIDL_IDL_
```